

REQUEST FOR PROPOSALS
under the
LANL-NMT Memorandum of Understanding
March 29, 2006

Background

Los Alamos National Laboratory (LANL) and the New Mexico Institute of Mining and Technology (NMT) signed a Memorandum of Understanding (MOU) on June 28, 2004. Designed to increase collaboration between LANL and NMT in research, education, recruitment, and retention, the MOU provides opportunities for NMT graduate and undergraduate students, postdoctoral researchers, and faculty to participate in innovative research collaborations with LANL. The agreement will enhance synergy and cross-fertilization of ideas with particular focus on the areas of astronomy and astrophysics, earth sciences (including geophysics, hydrology, and atmospheric physics), energetic materials, materials science, and the Magdalena Ridge Observatory. Both LANL and NMT will make research space and facilities available to staff involved in exchanges, visits, and sabbaticals. Scientific and technical workshops can also be supported under the program. A Management Committee consisting of representatives from each partner is responsible for defining and implementing a process to solicit and select collaborative research proposals.

REQUEST FOR PROPOSALS

The LANL-NMT MOU Management Committee hereby invites proposals to be considered for funding under the LANL-NMT Memorandum of Understanding. Topics of interest include:

- Astronomy and astrophysics,
- Earth sciences (including geophysics, hydrology, and atmospheric physics),
- Energetic materials,
- Materials science, and
- Magdalena Ridge Observatory

The timeline for the solicitation is as follows:

Distribution of RFP: March 30, 2006

Deadline for Proposals: April 21, 2006

Notification of Successful Proposals: May 5, 2006

Availability of Funds: By May 31, 2006

Collaborative Research Project Awards: The proposed research should be collaborative and should build upon the complementary capabilities and research facilities of LANL and NMT. Each proposal should describe work to be performed for a period not to exceed two years. Funding will be allocated on an annual basis. A total of \$500,000 is available for this funding cycle. Proposals shall provide significant opportunities for student and postdoctoral involvement. These projects awards are not

intended to be a source of continuing support. All funded projects require an annual report due within 30 days after the completion of each year of the project.

Institutional Goals

While preparing proposals, it is important to bear in mind the institutional goals of each partner, which include the following:

LANL

- Sustained partnership with NMT in the research focus areas with numerous research projects **involving graduate students and postdocs.**
- Identification and recruitment of excellent scientists/engineers to work at LANL.
- Assistance of graduate research assistants and postdocs in reinvigorating and sustaining science programs at the Laboratory.

NMT

- Close interactions with LANL and use of facilities for collaborative research.
- Opportunities for graduate students and postdocs to work on cutting-edge problems of long-term interest to LANL **that will result in substantial jointly funded programs.**
- Funding to develop collaborative projects.
- Support in **building a sustained, long-term strategic research capability** at NMT aligned with Los Alamos.

Format and Content

Proposals should fit within one or more of the topics of interest listed above. Proposals must not exceed five pages of narrative (12 point Arial font, single-spaced) with a one-page budget. **Cover sheets for proposal submission are available from the contacts listed in the Submission of Proposals section of this call.** The budgets can reflect a two-year effort, but each year must have a separate budget. **The allocation from this call is for the first year of the project only.** All proposals must include at least one Principal Investigator (PI) from NMT, at least one PI from LANL, and at least one graduate student or postdoc. A 2-month housing allowance must be included for graduate students or postdocs to spend two months of the summer for each project year working at LANL.

Description of the research project, no more than five (5) single-spaced pages. The type size should be clear and legible, in standard 12-point Arial type with one-inch margins on all sides. The narrative should briefly describe the following:

- Background and rationale: (research area background and rationale for proposed project)
- Research objective and goals
- Technical impact
- How the project fulfills the criteria set by the program (see selection criteria below)
- Research activities to be supported and plan of work
- Anticipated outcome/results and significance

- Role of each Co-PI and Lead PI in the project. How the joint research, communication, and exchange is going to be facilitated (e.g., by faculty visit(s) to LANL, by LANL staff visit(s) to NMT, by students or postdoctoral scholars working on-site at LANL).
- Other funding sources (whether funding is being leveraged by other sources)
- Capabilities at NMT and LANL (include both relevant facilities and expertise)

Budget

The total budget available for this call is \$500,000. A budget is required for each project year. The budget should include support for a graduate student or postdoc plus expenses for two-month's residence per project year in Los Alamos during the summer. Travel expenses should be included for both LANL and NMT personnel expected to travel back and forth between Los Alamos and Socorro. Salary recovery and support expenses such as travel for LANL personnel are allowed. No indirect costs are allowed on projects funded under the LANL-NMT MOU. A Sample Budget follows:

Year 1

Categories	Estimated Amount
1. Graduate student \$25,000/year (academic year + summer)	\$25,000
or	or
Postdoc (\$35,000/year)	\$35,000
3. Housing for graduate student or postdoc for two months in Los Alamos (Housing + \$39/day for meals)	\$4,000
4. Travel (\$240.75 roundtrip mileage + \$100/day)	\$6,000
5. Supplies, equipment	\$30,000
6. Other Personnel (summer support for faculty members or support for LANL personnel)	\$35,000
7. Total	\$100,000

Year 2

Categories	Estimated Amount
1. Graduate student \$25,000/year (academic year + summer)	\$25,000
or	or
Postdoc (\$35,000/year)	\$35,000
3. Housing for graduate student or postdoc for two months in Los Alamos (Housing + \$39/day for meals)	\$4,000
4. Travel (\$240.75 roundtrip mileage + \$100/day)	\$6,000
5. Supplies, equipment	\$30,000

6. Other Personnel	\$35,000
(summer support for faculty members or support for LANL personnel)	
7. Total	\$100,000

Above all, the budget should be realistic for the scope of work proposed. Budgets must be approved by financial personnel from each institution to ensure costs are correct.

Selection Criteria

Each proposal must have an education component (graduate student or postdoc involvement) and should include a plan for a two-year implementation period. In addition, the following elements should be included:

- provision for substantial research to occur on-site at LANL
- real-world utility of the work and its impact on national security and/or fundamental science programs at LANL
- collaboration and strategic alignment of the partner institutions
- cross-disciplinary approaches
- **the potential sustainability of the proposed work and a plan of how continued support will be solicited when support from LANL has terminated**

The following selection criteria will be used by the Management Committee to make decisions about which proposals to fund:

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| • Quality of science—creative, innovative | 30 points |
| • Collaboration—PIs, facilities, students | 25 points |
| • Qualifications of PIs | 10 points |
| • Sustainability, long-term strategy, real-world utility | 20 points |
| • Leveraged funding or facilities | 15 points |

These criteria should stand out, preferably as sections, in the proposal narrative.

Project Review and Reporting

There will be a review of project progress at the end of the first year. A progress report is required at the end of the year and a final report is required within 30 days after the project period.

Submission of Proposals

All submissions should be electronic and should be sent by email to the NMT Vice President for Research and Economic Development (smoore@admin.nmt.edu). (At NMT, questions may be addressed to David Westpfahl 505-835-5792, dwestpfa@nmt.edu. At LANL, questions may be addressed to Everett Springer, 505-667-7824 (everetts@lanl.gov) or Cynthia Bustos, 505-667-7824 (clbustos@lanl.gov).